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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,988	05/25/2001	Prashanth B. Bhat	10130-017-999	5844

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EXAMINER

SHAH, NILESH R

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/865,988	BHAT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nilesh Shah	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Claims 1-39 are presented for examination.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - a. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-4, 13-16, 25-31 are rejected under 35 U.S.C. 103(a) as being obvious over Van Dort (6,148,003) in view of Maruyama et al (6,353,847) (hereinafter Maruyama).
4. As per claim 1 Van Dort teaches a method for choosing a resource, among a plurality of resources, for selecting a request, comprising:  
  
randomly selecting a first resource among the plurality of resources in accordance with a predefined first random selection function (col. 10 line 47 –col. 11 line 13, Fig. 4).
5. Van Dort does not specifically teach the use of different load values.  
  
Maruyama teaches the first resource having an associated first load value (fig. 7, col. 1 lines 51-56);  
  
comparing the first load value to a predetermined threshold value to determine

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whether the first load value exceeds the predetermined threshold value (col. 7 lines 23-28, col. 2 lines 7-13); and

upon determining that the first load value does not exceed the predetermined threshold value, assigning the request to the first resource for servicing the request (col. 7 lines 29-33, col. 2 lines 20-22).

6. It would have been obvious to one skilled in the art at the time of the invention was made to combine the teachings of Maruyama and Van Dort because Maruyama's method of assigning and comparing load values to resources would improve Van Dort's system of distributing different resources by being able to tell with resource has exceeded its predetermined threshold value.
7. As per claim 2, Van Dort teaches a method including,  
randomly selecting a second resource among the plurality of resources in accordance with a predefined second random selection function(col. 10 line 47 –col. 11 line 13, Fig. 4).  
Maruyama teaches a upon determining that the first load value exceeds the predetermined threshold value (col. 7 lines 29-33, col. 2 lines 20-22);  
comparing the second load value to the predetermined threshold value to determine whether the second load value exceeds the predetermined threshold value(col. 7 lines 29-33, col. 2 lines 20-22); and

upon determining that the second load value does not exceed the predetermined threshold value, assigning the request to the second resource for servicing the request (col. 6 lines 15-21, col. 1 lines 57-60).

8. As per claim 3, Maruyama teaches a method including, upon determining that the second load value exceeds the predetermined threshold value:

comparing the first load value to the second load value and assigning the request to one of the first resource and second resource having a lower associated load value for servicing the request (col. 2 lines 18-28, col. 1 lines 52-56).

9. As per claim 4, Maruyama teaches a method further comprising:

determining whether the first resource is unavailable for selection(col. 7 lines 29-33, col. 2 lines 20-22); and

upon determining that the first resource is unavailable for selection, determining which of the plurality of resources are available for selection and redefining the plurality of resources to include only those of the plurality of resources that are available for selection (col. 6 lines 15-21, col. 2 lines 7-22).

10. Claims 13-16 and 28-31 are rejected based on the same rejections as claims 1-4 above.

11. As per claim 25, Van Dort teaches a method for randomly selecting a first resource among the plurality of resources in accordance with a predefined first random selection function (col. 10 line 47 –col. 11 line 13, Fig. 4)  
  
Maruyama teaches a method of assigning a load value to a plurality of resource (col. 7 lines 23-28, col. 2 lines 7-13); and  
  
selection function when the first load value exceeds the predetermined threshold value, determined whether a second load value associated with the second resource(col. 6 lines 15-21, col. 1 lines 57-60).
12. As per claim 26, Maruyama teaches a system among a plurality of resources, for servicing a request, comprising:  
  
one or more interfaces for receiving a request and for forwarding the request to a selected resource(col. 7 lines 29-33, col. 2 lines 20-22);  
  
exceeds the predetermined threshold value, and assign the request to the second resource for servicing the request when it is determined that the second load value does not exceed the predetermined threshold value (col. 6 lines 15-21, col. 1 lines 57-60).
13. As per claim 27, Maruyama teaches a system wherein the control logic is further configured to assign the request to whichever of the first and second resources has a lower associated load value when the second load value exceeds the predetermined threshold value (col. 6 lines 15-21, col. 2 lines 7-22).

14. Claims 5-12, 17-24, 32-39 are rejected under 35 U.S.C. 103(a) as being obvious over Van Dort (6,148,003) in view of Maruyama et al (6,353,847) (hereinafter Maruyama) in further view of Levy et al (6,546,454) (hereinafter Levy).
15. As per claim 5, Van Dort teaches a method for randomly selecting a first resource among the plurality of resources in accordance with a predefined first random selection function (col. 10 line 47 –col. 11 line 13, Fig. 4) and Maruyama teaches a method of assigning a load value to a plurality of resource (col. 7 lines 23-28, col. 2 lines 7-13) as taught in claim 1 above.
16. Van Dort and Maruyama do not specifically teach the use of a one-way hash.  
  
Levy teaches a method wherein the randomly selecting is performed by applying a one-way hashing function to the request to generate a first intermediate value, applying a modulo function to the intermediate value to generate a second intermediate value (col. 7 lines 30-37, col. 7 lines 59-67); and  
  
applying a mapping function for mapping the second intermediate value so as to select the first resource from among the plurality of resources (col. 7 lines 40-48).
17. It would have been obvious to one skilled in the art at the time of the invention was made to combine the teachings for Levy to Van Dort and Maruyama because Levy's system of verifying the resource availability would improve Van Dort and Maruyama's system by being able to identify and properly verify the resource requested.

18. As per claim 6, Maruyama teaches a method wherein the modulo function applied has a modulus whose value corresponds to a total load capacity of the plurality of resource (col. 1 lines 50-60, col. 7 lines 23-32).
19. As per claim 7, Maruyama teaches a method wherein each of the resources of the plurality of resources has an associated respective load capacity (col. 7 lines 23-32); and the mapping function is a probability density function in which each resource in the plurality of resources has a mapping range whose size corresponds to the respective load capacity associated with the resource (col. 1 lines 50-60, col. 7 lines 23-32).
20. As per claim 8, Maruyama teaches wherein each of the resources of the plurality of resources has an associated respective load capacity (col. 1 lines 50-60, col. 7 lines 23-32); and the mapping function is a weighted mapping function that is weighted in accordance with the respective load capacities associated with the plurality of resources (col. 1 lines 50-60, col. 7 lines 23-32).
21. Claims 9-12 are rejected based on the same rejections as claims 5-8 above.
22. Claims 17-24 and 32-39 are rejected based on the same rejections as claims 5-12 above.



***Response to Arguments***

23. Applicant's arguments filed 12/23/04 have been fully considered but they are not persuasive.
24. Applicant states a) there is no motivation to combine the teaching of Van Dort and Maruyama; b) Levy does not a one way hashing function.
25. As to point a) Maruyama clearly teaches motivation as to why one would want to use different load controls (col. 1 lines 10-35).

As to point b) Levy clearly teaches a one way hashing function (col. 7 lines 30-47) ('or example, a pre-defined one-way hash value' and 'the loader may also contain other functions 84 that process the bytecode(s) further, such as initializing data elements relative to the availability of **hardware resources** within the VM for a bytecode, or the resolution of platform-dependent hardware references.'

***Conclusion***

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nilesh Shah whose telephone number is (571)272-3771. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nilesh Shah  
Examiner  
Art Unit 2195

NS  
April 6, 2005

  
MAJID BANANKHAH  
PRIMARY EXAMINER